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PATENT APPLICATION

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IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Steve CHOU

Application No.: 10/750,261

Filing Date: 12/31/2003

Confirmation No.: 1726

Examiner: Henry W. Orr

Group Art Unit: 2176

Title: SYSTEM AND METHOD FOR ENTRY AND DISPLAY OF BLUEPRINT DATA

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TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 05/18/2009 .

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(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

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☐ 1st Month $130	☐ 2nd Month $490	☐ 3rd Month $1110	☐ 4th Month $1730

☐ The extension fee has already been filed in this application.

☑ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant:	Chou	Patent Application	
Application No.:	10/750,261	Group Art Unit:	2176
Filed:	December 31, 2003	Examiner:	Orr, H.

For: System and Method for Entry and Display of Blueprint Data

APPEAL BRIEF

Table of Contents

I. Real Party in Interest

The assignee of the present application is Trimble Navigation Limited.

II. Related Appeals and Interferences

There are no related appeals or interferences known to the Appellant.

III. Status of Claims

Claims 1, 3, 4, 7, 8, 9, and 15 are pending. Claims 1, 3, 4, 7, 8, 9, and 15 are rejected. Claims 2, 5-6, 10-14, and 16-20 were previously cancelled. This Appeal involves Claims 1, 3, 4, 7, 8, 9, and 15.

IV. Status of Amendments

An amendment subsequent to the Final Action has been filed. Appellant has no knowledge of whether this amendment has been entered. This amendment addresses an objection to the specification that was raised in the most recent Office Action (mail date 3/16/2009). All other proposed amendments have been entered.

V. Summary of Claimed Subject Matter

Independent Claim 1 of the present application pertains to a system for entry and display of blueprint data comprising a handheld device; independent Claim 8 for entering blueprint data into a handheld device; and independent Claim 15 of the present application pertains to a computer-readable medium comprising computer executable instructions stored therein for performing a method of processing a plurality of line segments received one at a time and stored in a hierarchical sequence.

In Claim 1, a "system for entry and display of blueprint data comprising a handheld device" is recited. This embodiment is depicted at least in Figure 1-5 and can be implemented with handheld device 100 as shown in Fig. 1, according to one embodiment (see e.g., page 7, line 22 - page 8, line 2. A graphical user interface for providing line segment data entry fields (Fig. 2A, items 210, 215, 220, 225), arc data fields comprising a start point field (410), an end point field (415), and a radius field (420) and for displaying (105, 205) input line segments and arc data is recited in Claim 1. The graphical user interface (GUI) is described at least at Fig. 2A, GUI 200; Fig. 2B, GUI 201; Fig. 2C, GUI 202; Fig. 2D, GUI 203; Fig. 3A, GUI 301; Fig. 3B, GUI 302; Fig. 3C, GUI 303; Fig. 4A, GUI 400; Fig. 4B, GUI 401; Fig. 4C, GUI 402; and Fig. 5, GUI 500. A processor and memory adapted for accepting one at a time, storing, and editing line segment and arc data associated with said input line segments," as recited in Claim 1 is described at least at page 8, lines 13-20). Claim 5 further recites "said editing of said arc data further comprising an arc segmenter (Fig. 4B; page 13, lines 17-22) for automatically segmenting a previously placed arc into at least two distinct arc segments (Fig. 4B; Fig. 4C; page 13, line 17 - page 14, line 6), and wherein said input line segments are stored as a hierarchical sequence (Fig. 5, hierarchical list shown in display 505) according to said accepting one at a time, and wherein

editing, insertion, or deletion of a selected line segment identically translate line segments that succeed the selected line segment of said hierarchical sequence without translating line segments that precede the selected line segment in said hierarchical sequence (page 14, lines 8-13; Figure 3B and 3C; and page 12, line 6 - page 13, line 6).

In Claim 8, a "method for entering blueprint data into a handheld device" is recited. "[E]ntering a start point for a first line segment," as recited in Claim 8 is described at least at Fig. 2A, item 210 and page 9, lines 11-18. "[E]ntering a length for said first line segment," as recited in Claim 8 is described at least at Fig. 2A, item 215 and page 9, lines 11-18. "[E]ntering a direction for said first line segment," as recited in Claim 8 is described at least at Fig. 2A, item 220 and page 9, lines 11-18. "[E]ntering a start point for an arc," as recited in Claim 8 is described at least at Fig. 4A, item 410 and page 9, lines 8-15. "[E]ntering an end point for said arc," as recited in Claim 8 is described at least at Fig. 4A, item 415 and page 9, lines 81-5. "[E]ntering a radius for said arc," as recited in Claim 8 is described at least at Fig. 4A, item 420 and page 9, lines 8-15. "[E]ntering and displaying said line segment and said arc on a display associated with said handheld device," as recited in Claim 8 is described at least by data display area 205 shown in Figures 2A - 4C and display 105 of handheld device 100 (Figure 1). "[P]roviding a segment editor to automatically parse said arc into a plurality of arc subdivisions," as recited in Claim 8 is described at least at item 430 of Figure 4A and at page 13, line 8 - page 14, line 6. "[E]ntering a start point for a second line segment, wherein said start point of said second line segment is an end point of said first line segment," as recited in Claim 8 is described at least by Fig. 2B by item 210 and at page 9, line 20 - page 10, line 20. "[E]ntering and displaying said second line segment on said display," as recited in Claim 8 is described at least in Fig. 2B where a line segment is displayed beginning at point 4 is shown in display area 205, similarly other line segments are

shown in Figure 2C. "[E]ntering a start point for a third line segment, wherein said start point of said third line segment is an end point of said second line segment," as recited in Claim 8 is described at least by Fig. 2C by item 210 (line segment start point 5), similarly other line segments are shown in Figure 2C. "[T]ranslating said second line segment so that the start point of said second line segment coincides with an end point of said third line segment," as recited in Claim 8 is described at least at page 11, line 18 - page 13, line 6 and at Figures 3A, 3B, and 3C, where the second line segment is shown between points 8 and 9 in figures 3A and 3B and the third line segment is shown between points 9 and 10 in figures 3A and 3B. "[E]ntering and displaying said third line segment on said display," as recited in Claim 8 is described at least by page 12, line 9 - page 13, line 6 and by the translation of the line segment between points 9 and 10 in Figure 3B to become the line segment between points 8 and 10 in Fig. 3C. "[S]toring said first, second, and third line segments as a hierarchical sequence, and wherein editing, or deletion of said second line segment automatically identically translates said third line segment without translating said first line segment," as recited in Claim 8 is described at least by page 14, lines 10-13 and Fig. 5 by the hierarchical listing of lines segments shown in display area 505 and by the line segment indentical translation shown between Figures 3B and 3C.

In Claim 15, a "computer-readable medium comprising computer executable instructions stored therein for performing a method of processing a plurality of line segments received one at a time and stored in a hierarchical sequence," is described. The computer readable medium is recited in Claim 15 as originally filed and a memory is described at page 8, lines 13-15. "[R]eceiving line segment data entry fields, arc data fields comprising a start point field, an end point field, and a radius field," as recited in Claim 15 is described at least at page 13, lines 8 - 15 and in Figure 4A by start point field 410, end point filed 415 and

radius field 420. "[D]isplaying input line segments and arc data," as recited in Claim 15 is described at least page 13, line 8 - page 14 line 6 and by the line segments and arc displayed in GUI 401 of Fig. 4B and GUI 402 of Fig. 4C. "[A]ccepting one at a time a storing and an editing of said input line segments and said arc data," as recited in Claim 15 is described at least at Fig. 5 and page 14, lines 8-13; by the progressive entering of line segment data and arc data illustrated in Figures 2A - 4C and described at page 8, line 22 - page 14, line 6; and by the editing displayed in Figures 3A - 3C and described at page 11, line 18 - page 13, line 6. "[S]aid editing of said arc data further comprising an arc segmenter for automatically segmenting a previously placed arc into at least two distinct arc segments," as recited in Claim 15 is described at least by segment arc length field 430 of Figure 4B and at page 13, lines 17 - 23. "[I]n response to editing, insertion, or deletion of a selected line segment of a plurality of line segments received one at a time and stored in a hierarchical sequence according to said being received one at a time, identically translating line segments succeeding said selected line segment without translating line segments preceding said selected line segment," as recited in Claim 15 is described at least at page 12, line 11 - page 13, line 6 and by the line segment deletion and identical translating illustrated by Figures 3B and 3C; and by GUI 500 of Figure 5 and page 14, lines 8-13.

VI. Grounds of Rejection to Be Reviewed on Appeal

1. Whether Claims 1, 3, 4, 7, 8, and 15 are unpatentable under 35 U.S.C. §103(a) over User Guide PocketCAD PRO version 4.0 (hereinafter "PocketCAD") running on a general mobile device, May 2001 in view of Christensen, US Patent No 4,663,616A.

2. Whether Claim 9 is unpatentable under 35 U.S.C. §103(a) over PocketCAD in view of Christensen and further in view of Minakata U.S. Patent No. 5,568,565 B1.

VII. Argument

1. Whether Claims 1, 3, 4, 7, 8, and 15 are unpatentable under 35 U.S.C. §103(a) over PocketCAD in view of Christensen.

Appellant respectfully submits that the combination of PocketCAD and Christensen does not satisfy the requirements of a *prima facie* case of obviousness because the features of Claims 1, 8, and 15 would not have been obvious over the combination of PocketCAD and Christensen as a whole.

Attention is directed to independent Claim 1 from which Claims 3, 4, and 7 depend. Independent Claims 8 and 15 include similar features to those of Claim 1 and were rejected with the same rationale used in rejecting Claim 1. Claim 1 recites (emphasis added),

> A system for entry and display of blueprint data comprising a handheld device, said handheld device further comprising:
> a graphical user interface for providing line segment data entry fields, arc data fields comprising a start point field, an end point field, and a radius field and for displaying input line segments and arc data;
> a processor and memory adapted for accepting one at a time, storing, and editing line segment and arc data associated with said input line segments, said editing of said arc data further comprising an arc segmenter for automatically segmenting a previously placed arc into at least two distinct arc segments, and wherein said input line segments are stored as a hierarchical sequence according to said accepting one at a time, and wherein editing, insertion, or deletion of a selected line segment identically translate line segments that succeed the selected line segment of said hierarchical sequence without translating line segments that precede the selected line segment in said hierarchical sequence.

"As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries" including "[a]scertaining the differences between the claimed invention and the prior art" (MPEP 2141(II)). "In determining the differences between the

prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious" (emphasis in original; MPEP 2141.02(I)).

Moreover, Appellant respectfully notes that "[t]he prior art reference (or references when combined) need not teach or suggest all the claim limitations. However, Office personnel must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art" (emphasis added; MPEP 2141[III]).

Appellant respectfully reiterates that the features of Appellant's claimed invention as a whole would not have been obvious, and therefore the instant Office Action does not satisfy the requirements for a rejection of Claim 1 under 35 U.S.C. §103(a). Moreover, Appellant respectfully submits that the instant Office Action fails to explain why these differences would have been obvious to one of ordinary skill in the art.

Appellant respectfully agrees with the instant Rejection that:

> PocketPAD [sic] fails to expressly teach wherein editing, insertion, or deletion of a selected line segment, translates line segments that succeed the selected line segment of said hierarchical sequence without translating line segments that precede the selected line segment in said hierarchical sequence.

(Rejection, page 5, lines 1-5; emphasis added), as is recited in Appellant's Claim 1 and similarly in Claims 8 and 15. Furthermore, Appellant respectfully submits that the combination of PocketCAD and Christensen as a whole fails to suggest the features of

Appellant's Claim 1 because there is no motivation or suggestion within Christensen to modify PocketCAD to arrive at the features of Appellant's Claim 1.

For example, Appellant understands Christensen to teach a technique in which "the user of an interactive computer graphics application which allows the user to attach lines to objects such that when the objects move, the lines will rubber-band to follow the object. (Christensen, Abstract). Moreover, Christensen provides that "the 'sticky' attribute can just as easily be applied to a line end which touches an object so as to cause the line end to follow the object should it be moved" (Christensen, column 6, line 3-6). Additionally, "the 'sticky' attribute… may also be applied to lines which touch or overlay other lines" (Christensen, column 6, lines 8-10).

Specifically, Appellant submits that Christensen and PocketCAD in view of Christensen fail to suggest or otherwise render obvious,

> …in response to editing, insertion, or deletion of a selected line segment of a plurality of line segments received one at a time and stored in a hierarchical sequence according to said being received one at a time, identically translating line segments succeeding said selected line segment without translating line segments preceding said selected line segment.

(emphasis added) as is recited in Appellant's Claim 1 and similarly in Claims 8 and 15. In the instant Rejection (page 5, last paragraph) the Rejection contends that "[i]n response to the newly amended limitation "identically translate", Examiner interprets the attached succeeding lines (i.e., succeeding line segments) of the "sticky" line segment that are translated to be identically translated because each succeeding line segment is moved from one place to another." Appellant submits that, in fact, Christensen is not capable of "identically translating" line segments as contended by the Rejection. Instead, Appellant

submits that Christensen's sticky attribute pulls or stretches lines (see results of such stretching by comparing lines 14 in Figure 2 with lines 14 in Figure 2) without identically translating the lines. Moreover, the lines are not "moved" from one place to another as posited by the Rejection, but are instead stretched, as is evidenced by lines 14 of Figure 2. As such, Appellant submits that neither Christensen nor the combination of PocketCAD in view of Christensen teaches, suggests, or otherwise renders obvious "... identically translating line segments succeeding said selected line segment without translating line segments preceding said selected line segment," as recited in Claim 1 and similarly in Claims 8 and 15.

Moreover, and as required by the MPEP recited above, Appellant respectfully submits that the Rejection does not explain why the differences between PocketCAD, Christensen, and Appellant's claimed features would have been obvious to one of ordinary skill in the art.

Thus, in view of the combination of PocketCAD and Christensen not satisfying the requirements of a *prima facie* case of obviousness and the Rejection failing to explain why the noted differences between Appellant's Claims and the cited art would have been obvious to one of ordinary skill in the art, Appellant respectfully asserts Claim 1 is patentable over the 35 U.S.C. §103(a) rejection to PocketCAD in view of Christensen. Furthermore, Appellant respectfully submits that Claims 8 and 15 are patentable for the reasons described herein regarding Claim 1. Additionally, Appellant respectfully asserts that Claims 3, 4, and 7 depending on Claim 1 are patentable as being dependent upon an allowable base Claim.

2. Whether Claim 9 is unpatentable under 35 U.S.C. §103(a) over PocketCAD in view of Christensen and further in view of Minakata.

Appellant respectfully submits that the combination of PocketCAD, Christensen, and Minakata does not satisfy the requirements of a *prima facie* case of obviousness because the features of Claim 9 would not have been obvious over the combination of PocketCAD, Christensen, and Minakata as a whole.

Appellant understands Minakata to disclose "[a] handwriting input method and apparatus [that] is disclosed which generates a single line segment from a group of input line segments which are input by a user" (Minakata, Abstract). However, nothing in Minakata suggests modifying PocketCAD or Christensen to arrive at the features of Appellant's Claim 8, such that "... deletion of said second line segment automatically identically translates said third line segment without translating said first line segment" (emphasis added; see above discussion of this feature with respect to Claim 1 which similarly recites a similar feature and was rejected with the same rationale used in rejecting Claim 8).

Moreover, and as required by the MPEP recited above, Appellant respectfully submits that the Rejection does not explain why the differences between PocketCAD, Christensen, and Minakata and Appellant's claimed features as recited in Claim 8 would have been obvious to one of ordinary skill in the art.

Thus, in view of the combination of PocketCAD, Christensen, and Minakata not satisfying the requirements of a *prima facie* case of obviousness and the Rejection not explaining why the differences would have been obvious to one of ordinary skill in the art, Appellant respectfully asserts Claim 8 is patentable for the rationale described herein. Furthermore, Appellant respectfully submits that Claim 9 that depends from Claim 8 is patentable as being dependent upon an allowable base Claim.

Conclusion

Appellant believes that pending Claims 1, 3, 4, 7, 8, 9, and 15 are patentable over the cited art and in condition for allowance.

Appellant respectfully requests that the rejection of Claims 1, 3, 4, 7, 8, 9, and 15 be reversed. The Appellant wishes to encourage the Examiner or a member of the Board of Patent Appeals to telephone the Appellant's undersigned representative if it is felt that a telephone conference could expedite prosecution.

Respectfully submitted,
Wagner Blecher LLP

Dated: July 20, 2009

/John P. Wagner, Jr./

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VIII. Appendix - Clean Copy of Claims on Appeal

1. A system for entry and display of blueprint data comprising a handheld device, said handheld device further comprising:

a graphical user interface for providing line segment data entry fields, arc data fields comprising a start point field, an end point field, and a radius field and for displaying input line segments and arc data;

a processor and memory adapted for accepting one at a time, storing, and editing line segment and arc data associated with said input line segments, said editing of said arc data further comprising an arc segmenter for automatically segmenting a previously placed arc into at least two distinct arc segments, and wherein said input line segments are stored as a hierarchical sequence according to said accepting one at a time, and wherein editing, insertion, or deletion of a selected line segment identically translate line segments that succeed the selected line segment of said hierarchical sequence without translating line segments that precede the selected line segment in said hierarchical sequence.

3. The system of Claim 1, wherein said line segment data entry fields comprise a start point field, a direction field, and a length field.

4. The system of Claim 1, wherein said display is a touchscreen.

7. The system of Claim 1, further comprising a keypad.

8. A method for entering blueprint data into a handheld device comprising:

entering a start point for a first line segment;

entering a length for said first line segment;

entering a direction for said first line segment;

entering a start point for an arc;

entering an end point for said arc;

entering a radius for said arc;

entering and displaying said line segment and said arc on a display associated with said handheld device;

providing a segment editor to automatically parse said arc into a plurality of arc subdivisions;

entering a start point for a second line segment, wherein said start point of said second line segment is an end point of said first line segment;

entering and displaying said second line segment on said display;

entering a start point for a third line segment, wherein said start point of said third line segment is an end point of said second line segment;

translating said second line segment so that the start point of said second line segment coincides with an end point of said third line segment;

entering and displaying said third line segment on said display; and

storing said first, second, and third line segments as a hierarchical sequence, and wherein editing, or deletion of said second line segment automatically identically translates said third line segment without translating said first line segment.

9. The method of Claim 8, further comprising entering a repeat factor for said line segment.

15. A computer-readable medium comprising computer executable instructions stored therein for performing a method of processing a plurality of line segments received one at a time and stored in a hierarchical sequence:

receiving line segment data entry fields, arc data fields comprising a start point field, an end point field, and a radius field;

displaying input line segments and arc data;

accepting one at a time a storing and an editing of said input line segments and said arc data, said editing of said arc data further comprising an arc segmenter for automatically segmenting a previously placed arc into at least two distinct arc segments; and

in response to editing, insertion, or deletion of a selected line segment of a plurality of line segments received one at a time and stored in a hierarchical sequence according to said being received one at a time, identically translating line segments succeeding said selected line segment without translating line segments preceding said selected line segment.

IX. Evidence Appendix

No evidence is herein appended.

X. Related Proceedings Appendix

No related proceedings.